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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,241	01/22/2002	John K. Walton	EMC2-078AUS	4075

22494 7590 06/18/2003

DALY, CROWLEY & MOFFORD, LLP
SUITE 101
275 TURNPIKE STREET
CANTON, MA 02021-2310

EXAMINER

ELAMIN, ABDELMONIEM, I

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 06/18/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.
10/054,241

Applicant(s)
Walton et al

Examiner
Abdelmoniem Elamin

Art Unit
2182



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 6, 2003
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-47 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 14, 15 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Martin et al,

US. Pat. No. 5,214,768 (*cited by Applicant*).

3. Claims 11, 20, 21, 29, 30, 39, 40 and 44, Martin a data storage system wherein end user data is transferred between a host computer and a bank of disk drives through an interface [*abstract, Host 12 of Figs 1-2*], such interface comprising;

a memory [*drive subsystem 44 of Figs 1-2*];

a plurality of directors, at least one front end one of said directors being in communication with the host computer and at least one rear end one of the directors being in communication with the bank of disk drives, each one of the directors comprising a central processing unit [*abstract, Figs 1-2, col. 3, line 45 thru col. 4, line 52*];

an interface state data bus section, for carrying interface state data, such interface state data bus section in communication with both the at least one front end one and at least one rear

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end one of the directors [*abstract, col. 3, line 64 thru col. 4, line 7, col. 5, line 63 thru col. 6, line 16*];

a plurality of end user data buses, for carrying end user data, each one of the plurality of end user data buses having a first end coupled to a corresponding one of the plurality of directors and a second end coupled to the memory [*abstract, Figs 1-2, col. 3, line 45 thru col. 4, line 52*]; and

wherein the central processing units of such plurality of directors control end user data transfer between the host computer and the bank of disk drives through the memory via the end user data buses in response to interface state data generated by the directors, such generated interface data being transferred among directors thorough the memory via the interface state data bus [*abstract, Figs 1-2, col. 3, line 45 thru col. 4, line 52*].

4. As to claim 12, 22 and 31, Martin teaches the end user data buses are serial busses [*see Figs 1-2*].

5. As to claim, 13, 23 and 32 Martin teaches the interface state data bus section includes parallel busses [*see Figs 1-2*].

6. As to claim 14, 24 and 33, Martin teaches coupling parallel busses to the directors in a multi-drop configuration [*Figs. 1-2*].

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7. As to claims 15, 25 and 34, Martin teaches the end user data buses are serial buses [Figs 1-2].

8. As to claim 16, 26 and 35, Martin teaches the parallel busses are coupled to the directors in a multi-drop configuration [abstract, Figs. 1-2].

9. As to claims 17-18, 27 and 36-37, Martin teaches a coupling node includes a cross-bar switch [abstract, Figs. 1-2].

10. As to claim 19, 28 and 38, Martin teaches the interface data bus section includes a plurality of parallel buses, each one thereof being coupled to a one of the plurality of directors and to the memory [abstract, Figs. 1-2].

11. As to claim 41-43 and 45-47, Martin teaches the first and the second portions of the end user data buses comprises a plurality of serial buses [abstract, Figs. 1-2].

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelmoniem I. Elamin whose telephone number is (703) 305-3804. The examiner can normally be reached Monday through Friday from 9:30 AM to 6:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin, can be reached at (703)308-3301.

Any inquiry of a general nature relating to the status of this application should be directed to the Group receptionist whose telephone number is (703)305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and trademarks

Washington, D.C. 20231

Or faxed to:

(703) 746-7239 (Official)

(703) 746-7240 (Non-Official/Draft)

(703) 746-7238 (After-final)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Forth Floor (receptionist).


Respectively submitted

Abdelmoniem Elamin

June 13, 2003